

Order 3, HOPLOMERTEA

Family Amphiporidae

Carcinonemertes carcinophila var. *imminuta*
Humes, 1942. G, S, W.

Family Drepanophoridae

Drepanophorus crassus (Quatr.), 1846. E, P, S,
W, X.

SUMMARY

The preceding lists show that many of the species have a remarkably wide geographical distribution already recorded and it may be expected that they will later be found elsewhere. Of the 16 species at present known from the northern Gulf coast, all except *Paranemertes biocellata* and *Amphiporus texanus* are widely distributed on the American Atlantic coast, and four of them, namely, *Tubulanus pellucidus*, *Zygeupolia rubens*, *Zygonemertes virescens*, and *Amphiporus cruciatatus*, occur also on the Pacific coast but not in Europe; two others, *Carcinonemertes carcinophila* and *Tetrastemma vermiculus*, are found on American Atlantic and European coasts but not in the Pacific; *Oerstedia dorsalis* and *Tetrastemma candidum* are circum-polar, being distributed along both the east and west Atlantic and Pacific coasts; *Malacobdella grossa* occurs on both American coasts and in Europe; while the remaining five species, *Carinoma tremaphoros*, *Lincus socialis*, *Micrura leidyi*, *Cerebratulus lacteus*, and *Amphiporus ochraceus* are known only from the Atlantic and Gulf coasts.

Paranemertes biocellata and *Cerebratulus texanus* have been found only on the northern Gulf coast and may possibly represent endemic species.

Of the seven species herein recorded from southern Florida, only two are known to occur both on the northern Gulf coast and in southern Florida, while *Lincus ater* and *Cerebratulus leucopsis* have been previously reported from Puerto Rico and Curaçao. *Cerebratulus fuscus* occurs also in northern Europe and South Africa, while *Drepanophorus crassus* has an almost world-wide distribution. *Tubulanus floridanus* and *Lincus stigmatus* are at present known only from Biscayne Bay, Fla.

For comparison, it may be noted that 11 of the 53 species found on the North American Atlantic coast are identical with species in European waters, while 12 of the Atlantic coast species occur also on the Pacific coast and 2 of these extend also to Japan. No less than 18 of the species found on the Pacific coast are thought to be identical with well-known European species and others are closely similar.

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ZOOLOGY.—A new species of marine nematode, *Thoracostoma magnificum*, with a note on possible "pigment cell" nuclei of the ocelli. R. W. TIMM, The Catholic University of America. (Communicated by E. G. Reinhard.)

The species of nematode described in this paper was collected from rocks at Point Barrow, Alaska, and sent to Dr. B. G. Chitwood at The Catholic University of America, Department of Biology, for identification. It is here described and figured as a new species of the family Enoplidae, subfamily Leptosomatinae:

Thoracostoma magnificum, n. sp. Fig. 1

Description.—Large worms with an elongate filiform body. Well-developed cephalic helmet (38 μ long); slits in the posterior grooves of the

helmet not joined. Amphids pocketlike, open—within a ring formed by the helmet; 7.5 μ wide in both male and female, one-ninth as wide as the cephalic diameter. Ten cephalic setae in the external circle, four of which are double; six setae in the internal circle. Dorsal tooth very inconspicuous. Dentiform projections in front of the helmet. No excretory pore or subventral excretory gland cell. Ocelli (19 μ in diameter) with red-pigmented "retina" and crystalline lens. Cuticle 12 μ at the head and tail, 8 μ at the mid-body. Nerve ring 30 percent of the esophageal length from the anterior in both sexes.

Male.—24 mm long; α , 98.4; β , 9.3; γ , 189. Length of spicules 264μ ; length of gubernaculum: corpus 125μ , crus 82.5μ . Total length of testes 33 percent of the body length. One preanal tuboid supplement situated ventrally and nine pairs of accessory papilloid supplements situated subventrally; nine pairs of submedian preanal and two pairs of submedian postanal papillae.

Female.—24 mm long; α , 98.4; β , 9.3; γ , 190. Vulva 64.4 percent from the anterior; both ovaries 31.5 percent of the body length; ovaries reflexed. Two eggs in the uterus, 224μ by 780μ .

Habitat.—Marine.

Locality.—Point Barrow, Alaska.

Specimens.—U.S.N.M. no. 131883 (cotypes).

Remarks.—Filipjev (1916) separated the new

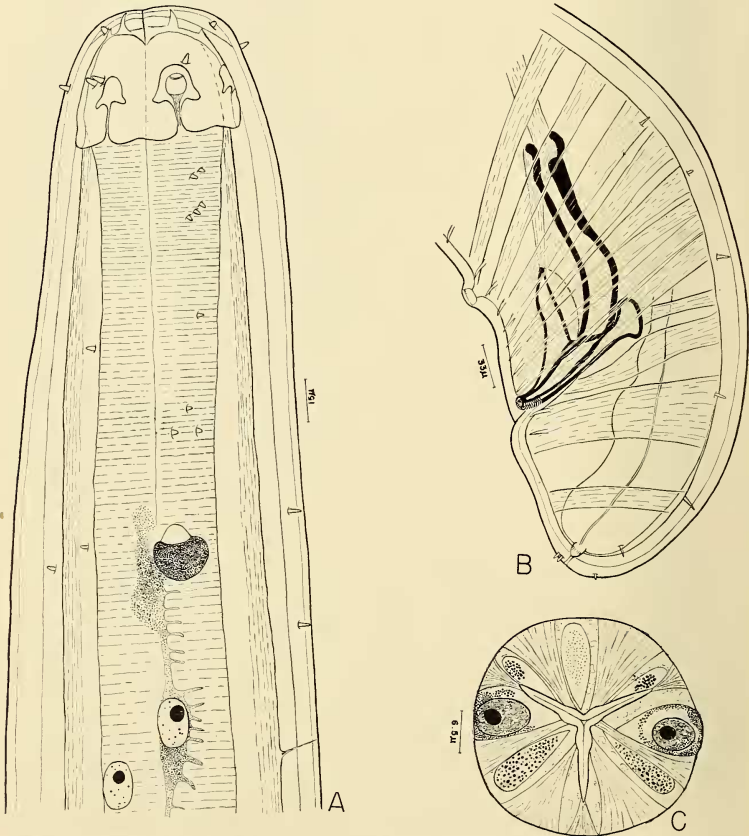


FIG. 1.—*Thoracostoma magnificentum*, n. sp.: A, anterior end; B, male tail; C, cross section through first two marginal nuclei of esophagus.

genus *Deontostoma* from *Thoracostoma* on the absence of "large dentiform projections in front." He characterized the genus *Thoracostoma* as having "a hollow ventral tooth." Although *Thoracostoma magnificum* does not have conspicuous teeth as seen in tomount preparations, yet in cross section a definite dorsal tooth, through which the dorsal esophageal gland duct opens, is found to be present. There are also dentiform projections in front. The genus *Deontostoma* has not been generally accepted.

A NOTE ON POSSIBLE "PIGMENT CELL"
NUCLEI OF THE OCELLI

Nothing has ever been observed on the innervation of the ocelli of nematodes. Schulz (1931) described a formative cell ("Bildungszelle") directly behind the ocellus of *Parasynplocostoma formosum* [? syn. of *Enchelidium marinum* (Müller, 1783) Ehrenberg, 1836]. He also described a canal ("Augenkanal") opening from the lens to the exterior. These observations have never been confirmed.

In *Thoracostoma magnificum* there are two large nuclei (11μ by 18μ) of the esophagus located a short distance behind the ocelli, which are half-embedded in the lateral walls of the esophagus (Fig. 1, A). These nuclei lie in accessory subventral gland ducts, which are filled with ocellus pigment granules, and lead to the eyes. They are the first two nuclei of the esophagus and

represent marginal nuclei (M_1 and M_2); they are surrounded by concentrations of ocellus pigment (Fig. 1, C). In *Leptosomatum elongatum* var. *acephalatum* Chitwood, 1936, and in *Thoracostoma figuratum* (Bastian, 1865) de Man, 1893, we have found these nuclei either in direct contact with the ocelli or a short distance behind them. Since the esophagus is a syncytium, the cytoplasmic boundaries of the cells producing the pigment have not been determined. However, since the regions in which the ocellus pigment extends throughout the esophagus are the same regions in which the marginal nuclei lie, it is suggested that the latter may function as the nuclei controlling pigment production. Possibly the two anteriormost marginal nuclei are specialized for activating the surrounding cytoplasm to produce the ocelli, while the others control the production of the diffuse pigment of the esophagus. However, nothing final can be stated at the present time about definite "pigment cell" nuclei which direct formation of the ocelli.

LITERATURE CITED

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SCHULZ, E. *Betrachtungen über Augen freilebender Nematoden*. Zool. Anz. **95** (9/10): 241-244. figs. 1-3. 1931.

ZOOLOGY.—*A second record of the polychaetous annelid Potamethus elongatus* (Treadwell). E. and C. BERKELEY, Pacific Biological Station, Nanaimo, British Columbia. (Communicated by F. A. Chace, Jr.)

The only specimen hitherto recorded of the polychaetous annelid *Potamethus elongatus* (Treadwell) is in the collection of the U. S. National Museum (no. 5221). It was taken by the steamer *Albatross* in the Hawaiian region in 1902 and briefly described by Treadwell (1906) under the name *Potamilla elongata*. The specimen was later re-examined by Hartman (1942) and attributed to the genus *Potamethus*. It was said to be fragmentary, but the essential details were described.

We have recently been fortunate enough to acquire three specimens of the species, sent to us by Dr. Clifford Carl, of the British Columbia Provincial Museum, Victoria, to whom they had been given by H. E. Wyeth,

of the cableship *Restorer*. They were found on sections of the San Francisco to Manila cable brought up for repair. The length of cable involved lies in depths varying from 840 to 1,600 fathoms, about 1,000 miles east of Guam. The specimens are all in good condition and complete, though much contracted, particularly in the peristomial region. One was preserved completely enclosed in its tube, the others partially enclosed. The lengths are, respectively, 50 mm, 51 mm, and 45 mm, the width about 2 mm in each case. The branchial plume, the filaments of which are twisted together in all the specimens, makes up half, or a little more, of the over-all length.

The general appearance agrees with that